

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/522,407

REMARKS

Claims 1-13 are all the claims pending in the application. Claims 1-13 presently stand rejected.

The title of the invention is objected to by the Examiner. Applicant amends the title to overcome this objection.

The specification is objected to by the Examiner because of informalities. Applicant amends the specification to overcome this objection.

The Abstract of the Disclosure is objected to by the Examiner. Applicant amends the abstract to overcome this objection.

The drawings filed on March 9, 2000 are objected to by the Examiner because Fig. 3 contains the reference sign “21” and Fig. 23 contains the reference sign “23”, both of which are not mentioned in the description. Applicant amends the specification to contain a description of the memory block 21 and the residual file detector 23 that are depicted in the drawings.

Claim 11 recites the limitation “said CPU” in line 15. The Examiner contends that there is insufficient antecedent basis for this limitation in the claim. Applicant amends the claim to remove any ambiguities.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Shima (EP 820 032 A2).

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

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Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2) and further in view of Utsunomiya (5,822,500).

Claim 4 is rejected under 35 U.S.C. § 102(b) as being anticipated by Shima (EP 820 032 A2).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2) and further in view of Utsunomiya (5,822,500).

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

Claim 8 is rejected under 35 U.S.C. § 102(b) as being anticipated by Shima (EP 820 032 A2).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being anticipated by Shima (EP 820 032 A2).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

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Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shima (EP 820 032 A2) in view of Shima et al. (EP 0 782 067 A2).

Analysis

Claims 1, 7 and 10-13 are the only claims in independent form; therefore, the following analysis is initially directed to these independent claims.

Claim 1 is rejected as being anticipated by EP '032. EP '032 is directed to a printing system wherein each of the print jobs are assigned a priority. In other words, each print job (e.g., from hosts H1-H4) is assigned to a particular order for printing (e.g., H2, H3, H4, H1) and then the print mechanism executes printing in that order. See cols. 5-6.

In contrast, the claimed invention prioritizes different types of tasks. According to claim 1, these tasks are: a printing task, an image generation task, writing to the auxiliary storage task, and reading from the auxiliary storage task. The relative order of priority of these different types of tasks varies when a predetermined event occurs. Thus, the assigned priorities are dynamic.

For example, this feature is discussed on pages 11-13 and illustrated in Figs. 1 and 9, where each task is assigned its relative priority.

Thus, while EP '032 is directed to assigning priority to each print job, there is no teaching or suggestion for assigning priority to other types of tasks involved with the printer, e.g., writing or reading from the auxiliary storage, image generation, etc.

In view of the foregoing, claim 1 is distinguishable from EP '032.

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Claim 7 is rejected as being unpatentable over EP '032 in view of EP '067. EP '032 is discussed above. EP '067 mentions various types of tasks (see col. 14, lines 11-14), however, the priorities of these tasks is not varied. There is no teaching that the assigned priority for each task ever changes. The Examiner points to col. 17, line 59 which mentions that the image information print system can print in a short time for making multiple copies. However, it does not "follow that the writing task is executed with a higher priority than the image generation task if it resulted in a decrease in processing time." Although it may be obvious generally to decrease processing time as much as possible in a printer system, there is no teaching or suggestion for accomplishing this objective by varying the assigned priorities of different types of tasks. There is certainly no suggestion of the particular priority assignment recited in claim 7 of having the writing means executed before the printing request.

In view of the foregoing, the teachings of EP '067 would not motivate one of ordinary skill in the art to modify EP '032 to have a prioritization scheme for different types of tasks as in the claimed invention according to claim 7.

Turning to the next independent claim 10, a writing process stores print data as it is received from an external device in an auxiliary storage, and a generation process generates a request for printing based upon the print data read from the auxiliary storage in the reading process. However, EP '032 and EP '067 fail to disclose the claimed auxiliary storage. EP '032 suggests that intermediate print information (print data) is read from the external device and converted, and not from the auxiliary storage (col. 5, step S104). EP '067 fails to remedy this deficiency. Thus, the combination of EP '032 and EP '067 fail to render claim 10 obvious.

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Turning to independent claim 11, the Examiner contends that the combination of EP '032 and EP '067 render this claim obvious. As mentioned above, EP '032 fails to teach or suggest the concept of prioritizing tasks as in the present invention. Rather, EP '032 merely prioritizes print job requests, and makes no attempt to assign priorities to the individual tasks associated with the print system based on predetermined triggers. EP '067 is directed to reducing processing time, however, this reference fails to teach or suggest that the writing process is precedently executed when a predetermined amount of stored requests for printing have been realized. Thus, even if one were to combine the two references, one would fail to arrive at the claimed invention.

Claim 12 is not rendered obvious by the combination of references either. Again, EP '032 makes no teaching or suggestion for prioritizing different tasks. This reference merely prioritizes print jobs in general. For instance, there is no teaching that the printing task is executed before the writing and reading to the auxiliary storage. EP '067 fails to make up for this deficiency, and therefore, the combination of references fails to arrive at claim 12.

Claim 13 is patentable for similar reasons to those discussed above. Namely, the combination of references fails to teach or suggest to control priority of the individualized tasks according to predetermined conditions.

The remaining rejections are directed to the dependent claims. These claims are patentable for at least the same reasons as the independent claims, by virtue of their dependency therefrom.

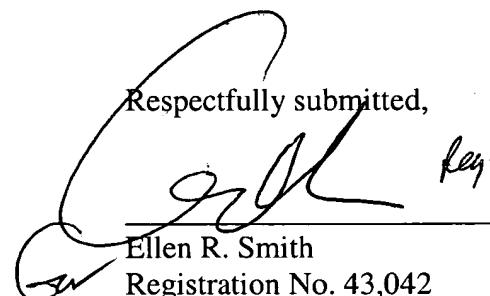
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Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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